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JOHN W. WUSTENBERG
P.O. BOX 1431
DUNCAN, OK 73536

EXAMINER	
COY, NICOLE A	

ART UNIT	PAPER NUMBER
3672	

DATE MAILED: 07/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/803,689	TODD ET AL.	
	Examiner	Art Unit	
	Nicole Coy	3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 August 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-100* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-62,70-81 and 84-100* is/are rejected.

7)☐ Claim(s) *63-69,82 and 83* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3/18/04,7/6/04;* 9/27/04; 12/9/04; 12/17/04; 6/10/05; 7/27/05; 4/14/05; 8/18/05
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-12, 18-22, 24, 32-34, 38-42, 46-62, 71, 85, 86, and 89-93 are rejected under 35 U.S.C. 102(e) as being anticipated by Grigsby et al.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

With respect to claims 1 and 38, Grigsby et al. discloses a disposable downhole tool or a component thereof (20) comprising an effective amount of biodegradable material such that the tool or the component desirably decomposes when exposed to a wellbore environment (see paragraph 25).

With respect to claims 2 and 40, Grigsby et al. discloses that the biodegradable material comprises a degradable polymer (see paragraph 26).

With respect to claim 3, Grigsby et al. discloses that the degradable polymer comprises an aliphatic polyester (see paragraph 27).

With respect to claim 4, Grigsby et al. discloses that the aliphatic polyester comprises a polylactide (see paragraph 27).

With respect to claim 5, Grigsby et al. discloses that the polylactide comprises poly(L-lactide), poly(D-lactide), poly(D,L-lactide), or combinations thereof (see paragraphs 31 and 32).

With respect to claim 6, Grigsby et al. discloses that the biodegradable material comprises one or more compounds selected from the group consisting of polysaccharides; chitin; chitosans; proteins; aliphatic polyesters; poly(lactides); poly(glycolides); poly(.epsilon.-caprolactones); poly(hydroxybutyrates); poly(anhydrides); aliphatic polycarbonates; poly(orthoesters); poly(amino acids); poly(ethylene oxides); and polyphosphazenes (see paragraph 27).

With respect to claim 7, Grigsby et al. discloses that the degradable polymer comprises polyanhydrides (see paragraph 27).

With respect to claim 8, Grigsby et al. discloses that the biodegradable material comprises one or more compounds selected from the group consisting of poly(adipic anhydride), poly(suberic anhydride), poly(sebacic anhydride), poly(dodecanedioic anhydride), poly(maleic anhydride), and poly(benzoic anhydride) (see paragraph 36).

With respect to claim 9, Grigsby et al. discloses plasticizers (see paragraph 33).

With respect to claim 10, Grigsby et al. discloses that the plasticizers comprise derivatives of oligomeric lactic acid (see paragraphs 33 and 34).

With respect to claim 11, Grigsby et al. discloses that the biodegradable material comprises poly(lactic acid) (see paragraph 30).

With respect to claim 12, Grigsby et al. discloses that the biodegradable material comprises poly(phenyllactide) (see paragraph 37).

With respect to claims 18 and 41, Grigsby et al. discloses that the biodegradable material is selected to achieve a desired decomposition rate when the tool is exposed to the wellbore environment (see paragraph 37).

With respect to claims 19 and 42, Grigsby et al. discloses that the wellbore environment comprises an aqueous fluid (see paragraph 40).

With respect to claim 20, Grigsby et al. discloses that the tool or the component is self-degradable (see paragraph 40).

With respect to claim 21, Grigsby et al. discloses that the wellbore environment comprises a wellbore temperature of at least about 200 degrees Fahrenheit (see paragraph 38).

With respect to claims 22 and 47, Grigsby et al. discloses that the decomposition is due to hydrolysis (see paragraph 26).

With respect to claim 24, Grigsby et al. discloses that the chemical solution comprises a caustic fluid, an acidic fluid, an enzymatic fluid, an oxidizer fluid, a metal salt catalyst solution or a combination thereof (see paragraph 28).

With respect to claims 32, 48, and 90, Grigsby et al. discloses that the decomposition comprises loss of structural integrity of the tool or the component (see paragraph 26).

With respect to claims 33, 49, and 91, Grigsby et al. discloses that the decomposition comprises loss of functional integrity of the tool or the component (see paragraph 26).

With respect to claims 34, 50, and 92, Grigsby et al. discloses that the tool or the component decomposes within about a predetermined amount of time (see paragraph 26).

With respect to claim 39, Grigsby et al. discloses that the component thereof is fabricated from an effective amount of biodegradable material such that the tool or the component thereof desirably decomposes when exposed to the wellbore environment (see paragraph 26).

With respect to claim 46, Grigsby et al. discloses that the tool or the component thereof is exposed to the aqueous while the tool is installed within the wellbore (see paragraph 40).

With respect to claim 51, Grigsby et al. discloses further comprising catalyzing decomposition of the tool or the component thereof by applying a chemical solution to the tool or the component thereof (see paragraph 28).

With respect to claim 52, Grigsby et al. discloses that the chemical solution comprises: a caustic fluid, an acidic fluid, an enzymatic fluid, an oxidizer fluid, a metal salt catalyst solution or a combination thereof (see paragraph 28).

With respect to claims 53-55, the chemical solution can be applied before, during, or after the downhole operation.

With respect to claim 56, the chemical solution can be applied via timer-control.

With respect to claims 57-59 and 93, the solution can be applied mechanically, hydraulically or electrically.

With respect to claim 60, the chemical solution can be applied using a communication means.

With respect to claims 61 and 89, the chemical solution is applied to the tool or the component thereof by dispensing the chemical solution into the wellbore (see paragraph 28).

With respect to claim 62, the chemical solution can be applied by injection (see paragraph 28).

With respect to claims 71 and 86, Grigsby et al. discloses a system and method for applying a chemical solution (see paragraph 28) to a disposable downhole tool or the component thereof that desirably decomposes when exposed to a wellbore environment; wherein the chemical solution catalyzes decomposition of the tool or the component thereof (see paragraph 40).

With respect to claim 85, Grigsby et al. discloses that the chemical solution comprises: a caustic fluid, an acidic fluid, an enzymatic fluid, an oxidizer fluid, a metal salt catalyst solution or a combination thereof (see paragraph 28).

With respect to claim 88, Grigsby et al. discloses that the applying step comprises releasing the chemical solution from storage external to the tool (see paragraph 28).

3. Claims 1, 23, 25-31, 35-38, 45, 46, 51, 53-62, 70-81, 84, 86, 87, 89, 93-96, and 98-100 are rejected under 35 U.S.C. 102(b) as being anticipated by Owens et al.

With respect to claims 1 and 38, Owens et al. discloses a disposable downhole tool or a component thereof comprising an effective amount of biodegradable material such that the tool or the component desirably decomposes when exposed to a wellbore environment (see column 2 lines 43-54).

With respect to claims 71 and 86, Owens et al. discloses a system/method for applying a chemical solution (fluid in 46) to a disposable downhole tool or the component thereof that desirably decomposes when exposed to a wellbore environment; wherein the chemical solution catalyzes decomposition of the tool or the component thereof (see column 3 lines 51-58).

With respect to claims 23 and 72, Owens et al. discloses an enclosure (46) for storing a chemical solution that catalyzes decomposition (see figure 5).

With respect to claims 25 and 74, Owens et al. discloses an activation mechanism (28) for releasing the chemical solution from the enclosure.

With respect to claims 26 and 75, Owens et al. discloses that the activation mechanism comprises a frangible enclosure body.

With respect to claims 27 and 76, Owens et al. discloses that the activation mechanism is timer-controlled.

With respect to claims 28-30 and 77-79, Owens et al. discloses that the activation mechanism can by hydraulically, mechanically, or electrically operated.

With respect to claims 31 and 80, means 28 can also be operated by a communication means (see column 3 lines 26-57).

With respect to claims 35-37 and 70, plug 16 is considered a bridge plug, frac plug, or packer.

With respect to claims 45 and 46, the chemical solution can be applied to the tool before, during, or after downhole operation.

With respect to claim 51, Owens discloses further comprising catalyzing decomposition of the tool or the component thereof by applying a chemical solution to the tool or the component thereof (see abstract).

With respect to claims 53-55, the chemical solution can be applied before, during, or after downhole operation.

With respect to claims 56 and 93, the chemical solution can be applied via timer-control.

With respect to claims 57-59, the chemical solution can be applied mechanically, hydraulically, or electrically.

With respect to claim 60, the chemical solution can be applied using communication means.

With respect to claim 61, the chemical solution is applied to the tool or the component thereof by dispensing the chemical solution into the wellbore (via 46).

With respect to claim 62, the dispensing step comprises injecting the chemical solution into the wellbore (see figure 5).

With respect to claim 73, Owens et al. discloses that the enclosure (46) is disposed on the tool.

With respect to claims 81 and 94, Owens et al. discloses the enclosure is broken to release the chemical solution (see column 3 lines 51-58).

With respect to claim 84, Owens et al. discloses a conduit (22) extending into the wellbore to apply the chemical solution onto the tool or the component thereof.

With respect to claim 87, Owens et al. discloses that the applying step comprises releasing the chemical solution from storage integral to the tool (see column 3 lines 51-58).

With respect to claim 89, Owens et al. discloses that the applying step comprises dispensing the chemical solution into the wellbore (via 46).

With respect to claim 95, Owens et al. discloses a method for desirably decomposing a disposable downhole tool or the component thereof installed within a wellbore comprising: releasing water from a compound (46) within the tool or the component thereof due to exposure to heat in the wellbore; and at least partially decomposing the tool or the component thereof by hydrolysis (see column 3 lines 51-58, wherein the reaction of the wrap with the water is by hydrolysis).

With respect to claim 96, Owens et al. discloses that the tool or the component thereof comprises an effective amount of biodegradable material such that the tool or the component thereof desirably decomposes when exposed to a wellbore environment (see column 3 lines 51-58).

With respect to claim 98, Owens et al. discloses selecting the biodegradable material to achieve a desired decomposition rate of the tool or the component thereof (see column 2 lines 43-54).

With respect to claim 99, Owens et al. discloses that the decomposition comprises loss of structural integrity of the tool or the component thereof (see column 2 lines 43-54).

With respect to claim 100, Owens et al. discloses that the decomposition comprises loss of functional integrity of the tool or the component thereof (see column 2 lines 43-54).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 13-17, 43, 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grigsby et al. in view of Munoz, Jr. et al. (USP 7,036,587 hereinafter "Munoz").

With respect to claims 13 and 43, Grigsby et al. does not disclose a hydrated organic or inorganic solid compound. Munoz discloses adding a hydrated organic or inorganic solid compound to a degradable polymer in order to provide a source of water to degrade the polymer (see column 55-61 and column 6 lines 5-32). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Grigsby et al. by including a hydrated organic or inorganic solid compound as taught by Munoz in order to provide a source of water to degrade the polymer.

With respect to claim 14, Grigsby et al. in view of Munoz teach that the hydrated organic or inorganic solid compound comprises hydrates of organic acids or organic acid salts (see Munoz lines 19-32).

With respect to claim 15, Grigsby et al. in view of Munoz teach that the hydrated organic or inorganic solid compound comprises one or more compounds selected from the group consisting of: sodium acetate trihydrate, L-tartaric acid disodium salt dihydrate, sodium citrate dihydrate, sodium tetraborate decahydrate, sodium hydrogen phosphate heptahydrate, sodium phosphate dodecahydrate, amylose, starch-based hydrophilic polymers, and cellulose-based hydrophilic polymers (see Munoz lines 19-32).

With respect to claim 16, Grigsby et al. in view of Munoz teach that the biodegradable material comprises an aliphatic polyester and sodium acetate trihydrate (see Munoz lines 19-32).

With respect to claim 17, Grigsby et al. in view of Munoz teach that the biodegradable material comprises a polyanhydride and sodium acetate trihydrate (see Munoz lines 19-32).

With respect to claim 44, Grigsby et al. in view of Munoz teach a wellbore temperature of at least about 200 degrees Fahrenheit (see paragraph 38).

6. Claim 97 is rejected under 35 U.S.C. 103(a) as being unpatentable over Owens in view of Grigsby et al.

With respect to claim 97, Owens et al. does not specify the type of degradagble material that is used. However, Grigsby et al. discloses using polymers as a degradable material based on their physical properties. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Owens et al. by including a degradable polymer as taught by Grigsby et al. because of the desirable physical properties of polymers.

Allowable Subject Matter

7. Claims 63-69, 82, and 83 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicole Coy whose telephone number is 571-272-5405. The examiner can normally be reached on M-F 7:30-5:00, 1st F off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

nac

William Neuder
Primary Examiner